Environmental Log Number: 08-95

Adobe Ranch Temporary Additional Point of Delivery and Temporary Right-of-Way Access at Milepost 17.28 on the Madera Canal

South-Central California Area Office

Date: September 1, 2009

To:					
	Natural Resource Specialist	SCC 413		R Healer	9/1/09
	Natural Resources Specialist	SCC 412		P Clinton	9/1/09
	Secretary	SCC 101		P Escobar	9/1/09
	Chief, Resource Division	SCC 400		L Myers	9/1/09
	Deputy Area Manager	SCC 430		T Buelna	9/1/09
	Natural Resource Specialist	SCC 413		R Healer	9/1/09

Cost Authority Number: **A1R 1752-9652-220-03-4-1**
From: Rain Healer

Subject: Review and signing of FONSI

Please review the attached FONSI/EA and route it according to the order on the list. When your review is finished, please date, initial and sign on the last page. However, if you have comments or questions please contact the Environmental Team or the proponent of the action. When everyone has signed the FONSI, please return it to Rain Healer.

Thank you.

Ready for Central Files 9/1/09

Copies to: MP-3730 (1 Copy)
Natural Resources Specialist (1 Copy): Rain Healer – SCC-413
Project Lead (1 Copy): B Hidleburg – SCC 415
RMD Files (E-Copy): Kiran Grewal SCC-417

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MID-PACIFIC REGION

SOUTH-CENTRAL CALIFORNIA AREA OFFICE
FRESNO, CALIFORNIA

FINDING OF NO SIGNIFICANT IMPACT

ADOBE RANCH TEMPORARY ADDITIONAL POINT OF DELIVERY AND TEMPORARY RIGHT-OF-WAY ACCESS AT MILEPOST 17.28 ON THE MADERA CANAL

FONSI-08-95

Recommended by:

Date: 9/01/2009

Rain Healer
Natural Resources Specialist
South Central California Area Office

Concurred by:

Date: 9/1/09

Patti Clinton
Acting Supervisory Natural Resources Specialist
South Central California Area Office

Concurred by:

Date: 9/1/09

Laura Myers
Resource Management Division Chief
South Central California Area Office

Approved by:

Date: 9/1/09

Tony Buelna
Acting Deputy Area Manager
South Central California Area Office

FINDING OF NO SIGNIFICANT IMPACT
Adobe Ranch Temporary Additional Point of Delivery and Temporary Right-of-Way Access at Milepost 17.28 on the Madera Canal

In accordance with the National Environment Policy Act of 1969, as amended, the South-Central California Area Office of the U.S. Bureau of Reclamation (Reclamation) has determined that an environmental impact statement is not required for the approval of a temporary right-of-way access permit and temporary additional point of delivery of up to 200 acre-feet (AF) of Smith Adobe Ranch Family Partnership's (Adobe Ranch) 300 AF/year (AFY) substitute water supply for the purpose of livestock watering. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA) Number 08-95, *Adobe Ranch Temporary Additional Point of Delivery and Temporary Right-of-Way Access at Milepost 17.28 on the Madera Canal*, dated August 2009, and is hereby incorporated by reference.

BACKGROUND

Adobe Ranch has a contract (contract number 14-06-200-6523) dated July 8, 1957 with the Bureau Reclamation (Reclamation) for up to 300 AFY of a "Substitute Water Supply" for irrigation purposes to be delivered at Dike 3 (Milepost [MP] 20.57) off of the Madera Equalization Reservoir (Reservoir). The existing contract allows up to 300 AFY water supply to be beneficially used for watering livestock and for the Adobe Ranch's land. The United States is responsible for delivering annually to Adobe Ranch, without cost to Adobe Ranch, and at such times as Adobe Ranch shall order, not to exceed 300 AFY of water at Dike number 3 in section 18, Township 10 south, Range 19 east, MDB&M; provided that the United States shall be obligated to deliver water only at such times as water is available in the Reservoir as required for deliveries to other users and when the water level in Reservoir is above the turnout at Dike number 3. The source of the water from the Reservoir is Millerton Lake.

The area covered by the current contract goes from the Reservoir to approximately 2.5 miles south and includes approximately 700 acres of non-irrigated pasture owned by Adobe Ranch. The water from the Reservoir is released at Dike number 3 into a natural channel and travels approximately 1.5 miles south to a diked pond. The water delivered to Adobe Ranch is currently used for livestock watering.

Reclamation received a request, in July 2009 from Adobe Ranch, to approve a temporary additional point of delivery for delivery of up to 200 AF of their 300 AF substitute water supply for irrigation of livestock kept on lands to the west of the currently irrigated pastures. This action was done in 1990, 1991, and 1992 during drought conditions. Adobe Ranch is also pursuing a separate long-term action which is not covered under this EA and would require additional environmental analysis.

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

FINDINGS

Water Resources

Under the Proposed Action, up to 200 AF of water will be pumped from the Madera Canal to be delivered to the concrete inlet siphon on the north side of the dirt operation and maintenance road. Water will flow under the Madera Canal to be released at the outlet siphon on the south side of the canal into a natural watercourse to be delivered to two ponds south of the canal on Adobe Ranch lands to be used for livestock watering. This water is part of Adobe Ranch's 300 AF contract allocation and will not affect Reclamation's ability to deliver water to other customers. Groundwater will not be pumped as a result of the Proposed Action. Water delivered for livestock watering may also contribute a small amount to groundwater recharge as there is always some seepage into the ground from natural courses. There will be slight beneficial impacts to water resources as a result of the Proposed Action.

Air Quality

Under the Proposed Action, up to 200 AF of water will be pumped from the Madera Canal via an 80 horsepower Teir II diesel tractor-mounted pump to be delivered to the concrete inlet siphon on the north side of the dirt operation and maintenance road. Water will flow under the Madera Canal to be released at the outlet siphon on the south side of the canal into a natural watercourse to be delivered to two ponds south of the canal on Adobe Ranch lands to be used for livestock watering. Air quality emissions for the Proposed Action are well below the de minimus thresholds for the San Joaquin Valley Air Pollution Control District; therefore, there are no air quality impacts associated with this project.

Biological Resources

Under the Proposed Action, some minor disturbance will occur in a mostly disturbed area. The only species at issue will be the raptors utilizing the nearby nest that Halstead & Associates found (likely a pair of Red-tailed Hawks). To protect these hawks, the work will be done outside of the nesting season (the non-nesting period is September through February). A follow-up survey by a qualified biologist is planned, to ensure that no effects have occurred on any riparian or wetland habitat. Work will be confined to a flagged area, to protect adjacent wetlands. As long as the work is confined to the area necessary for the installation of the pipes and trailer-mounted pump, no such impacts are expected.

Critical habitat for the vernal pool fairy shrimp, hairy Orcutt grass, San Joaquin Valley Orcutt grass, and succulent owl's-clover are all present. However, no vernal pools or the watersheds of vernal pools will actually be affected by the Proposed Action, because the work will be confined to a small, already-disturbed area, which itself does not contain any vernal pools, nor is it near any. Only perennial wetlands are nearby.

Cultural Resources

Under the Proposed Action alternative, Reclamation will permit 200 AF of water to be pumped out of the Madera Canal utilizing a mobile pump located adjacent an existing maintenance road near the Madera Canal. The water will be pumped into an existing waterway which will provide water downstream to existing stock ponds. A small trench through an existing maintenance road will be excavated to install the polyvinyl chloride pipe and allow maintenance vehicles ability to pass over the pipe. All excavation will occur within disturbed contexts of the existing maintenance road. The

Proposed Action has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). The Proposed Action will have no impact to cultural resources as a result.

Indian Trust Assets

There are no tribes possessing legal property interests held in trust by the United States in the water involved with this action, nor is there such a property interest in the lands designated to receive the water proposed in this action. The Proposed Action does not affect Indian Trust Assests (ITA), the nearest ITA is a Public Domain Allotment, approximately 13 miles northeast from the Proposed Action area.

Socioeconomic Resources

Under the Proposed Action, water will be delivered at MP 17.28 for watering additional head of cattle. There will be a beneficial impact to Adobe Ranch's socioeconomic resources, but no overall impact to socioeconomic resources within the county.

Environmental Justice

The Proposed Action will not cause dislocation, changes in employment, or increase flood, drought, or disease. The Proposed Action will not disproportionately impact economically disadvantaged or minority populations.

Land Use

The Proposed Action will include the delivery of CVP water at a temporary additional point of delivery for livestock watering. The Proposed Action area is already used for livestock watering and will not include changes in land use; therefore there are no impacts to land used associated with the Proposed Action.

Global Climate Change

Greenhouse gas (GHG) emissions generated during construction of the Proposed Action will predominantly be in the form of carbon dioxide ($CO_{2)}$. In comparison to criteria air pollutants, such as ozone and particulate matter up to 10 microns in diameter, CO_2 and other GHG emissions persist in the atmosphere for a much longer period of time. While any increase in GHG emissions will add to the global inventory of gases that will contribute to global climate change, the Proposed Action will result in only very slight increases in GHG emissions from temporary or existing sources. The Proposed Action's contribution to a net increase in GHG emissions will be less than considerable.

Cumulative Impacts

The Proposed Action, when added to other actions, will not contribute to significant increases or decreases in environmental conditions. The delivery of water at MP 17.28 on the Madera Canal will be temporary lasting only through October 2009. The Proposed Action was found to have no adverse impact on water resources, biological resources, cultural resources, ITAs, air quality, global climate change, socioeconomics, environmental justice, and land use and therefore there is no contribution to cumulative impacts on these resources areas.

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Adobe Ranch Temporary Additional Point of Delivery and Temporary Right-of-Way Access at Milepost 17.28 on the Madera Canal

EA-08-95

U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
South Central California Area Office
Fresno, California

August 2009

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Table of Contents

List of Figures and Tables

List of Acronyms, Abbreviations, and Definition of Terms

AB 32	California Global Warming Solutions Act of 2006
Adobe Ranch	Smith Adobe Ranch Family Limited Partnership
AFY	acre-feet per year
APE	Area of Potential Effect
CAA	Clean Air Act
CFR	Code of Federal Regulations
cfs	cubic-feet per second
CO_2	Carbon dioxide
CVP	Central Valley Project
CWA	Clean Water Act
EA	Environmental Assessment
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FWCA	Fish and Wildlife Coordination Act
GHG	Green House Gases
HP	Horsepower
ITAs	Indian Trust Assets
MBTA	Migratory Bird Treaty Act
MH_3	Methane
MP	mile post
NAAQS	National Ambient Air Quality Standards
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
O&M	Operation and maintenance
PVC	polyvinyl chloride
Reclamation	U.S. Bureau of Reclamation
Reservoir	Madera Equalization Reservoir
ROW	Right of Way
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District

Section 1 Purpose and Need for Action

1.1 Background

The Smith Adobe Ranch Family Limited Partnership (Adobe Ranch) has a contract (contract number 14-06-200-6523) dated July 8, 1957 with the Bureau Reclamation (Reclamation) for up to 300 acre-feet per year (AFY) of a "Substitute Water Supply" for irrigation purposes to be delivered at Dike 3 (milepost [MP] 20.57) off of the Madera Equalization Reservoir (Reservoir). The existing contract allows up to 300 AFY water supply to be beneficially used for watering livestock and for the Adobe Ranch's land. The United States is responsible for delivering annually to Adobe Ranch, without cost to Adobe Ranch, and at such times as Adobe Ranch shall order, not to exceed 300 AFY of water at Dike number 3 in section 18, Township 10 south, Range 19 east, MDB&M; provided that the United States shall be obligated to deliver water only at such times as water is available in the Reservoir as required for deliveries to other users and when the water level in Reservoir is above the turnout at Dike number 3. The source of the water from the Reservoir is Millerton Lake.

The area covered by the current contract goes from the Reservoir to approximately 2.5 miles south and includes approximately 700 acres of non-irrigated pasture owned by Adobe Ranch (see Figure 1). The water from the Reservoir is released at Dike number 3 (MP 20.57) into a natural channel and travels approximately 1.5 miles south to a diked pond. The water delivered to Adobe Ranch is currently used for livestock watering.

Reclamation received a request, in July 2009 from Adobe Ranch, to approve a temporary additional point of delivery for delivery of up to 200 AF of their 300 AF substitute water supply for irrigation of livestock kept on lands to the west of the currently irrigated pastures (see Figure 1). This action was done in 1990, 1991, and 1992 during drought conditions. Adobe Ranch is also pursuing a separate long-term action which is not covered under this EA and would require additional environmental analysis.

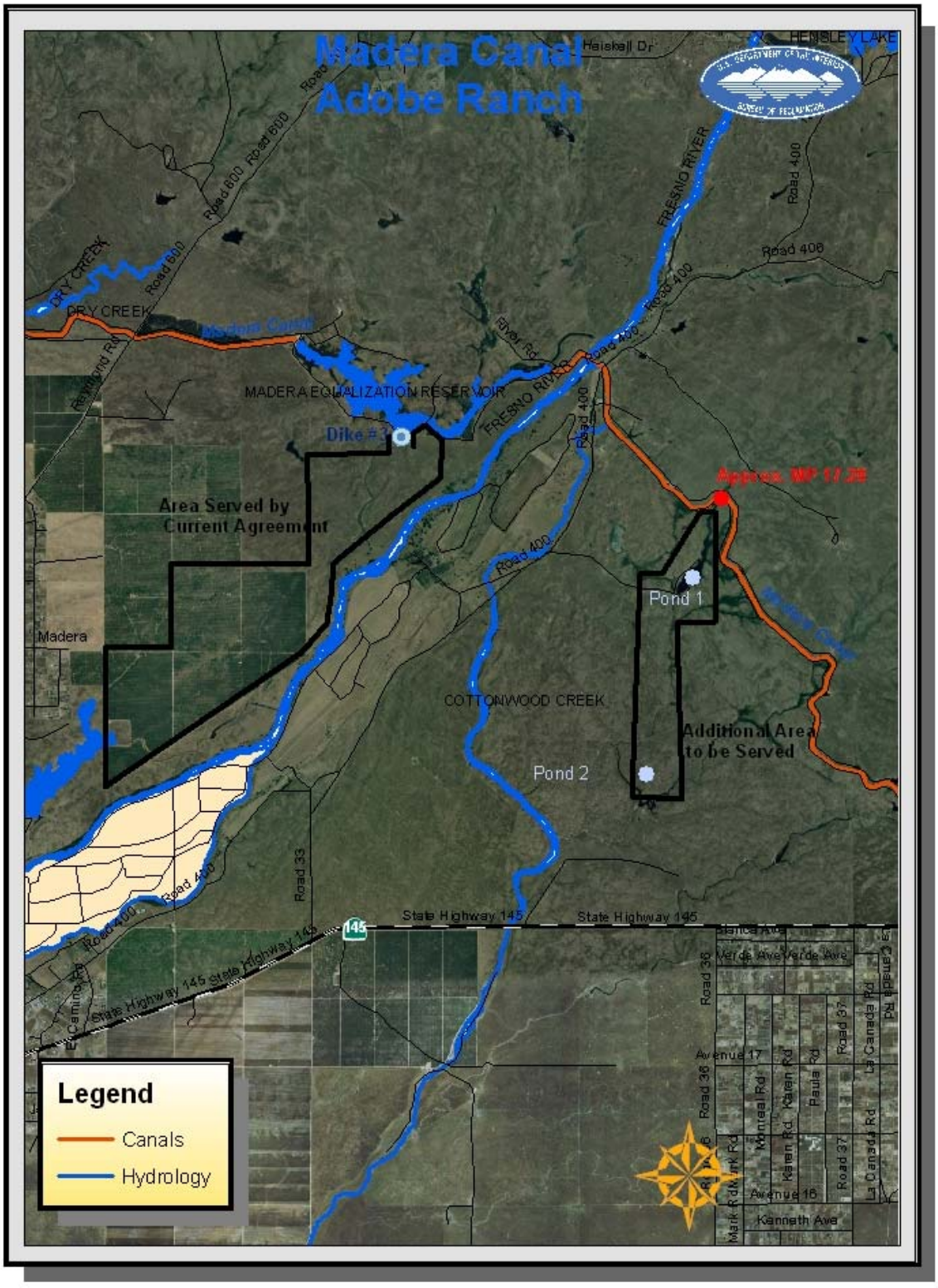

Figure 1. Project Location Map

1.2 Purpose and Need

Reclamation's purpose is to fulfill its mission which is to manage, develop and protect water and related resources in an environmentally and economically sound manner in the interest of the American people. In order to fulfill its mission, Reclamation facilitates water delivery that would benefit efficient and effective water use. Reclamation's purpose under the Proposed Action would be to fulfill its role as Contracting Officer and approve Adobe Ranch's temporary additional point of delivery of up to 200 AF of substitute water for livestock irrigation.

Adobe Ranch needs an additional point of delivery for their substitute water supply for watering livestock during this drought period. Without the additional point of delivery the amount of cattle that could be raised by Adobe Ranch would be reduced from 1,000 head to 250 head at a loss of 750 head of cattle.

1.3 Scope

The scope of this environmental assessment (EA) is limited to the environmental impacts associated with the delivery of substitute water supply at a temporary additional point of delivery on the Madera Canal.

1.4 Potential Issues

- Water Resources
- Biological Resources
- Cultural Resources
- Indian Trust Assets
    - Indian Trust Assets have been eliminated from further analysis as there are none in the Proposed Action area.
- Land Use
- Socioeconomic Resources
- Environmental Justice
- Air Quality
- Cumulative Impacts

Section 2 Alternatives Including Proposed Action

2.1 No Action

Under the No Action Alternative, Reclamation would not approve the temporary additional point of delivery of up to 200AF of substitute water supply for irrigation of livestock on lands west of the currently irrigated pasturelands or the temporary right-of-way (ROW) access permit. Adobe Ranch would not be able to receive water from the Madera Canal this year for livestock watering which would reduce the amount of cattle that could be raised from 1,000 head to 250 head at a loss of 750 head of cattle.

2.2 Proposed Action

Reclamation proposes to approve a temporary ROW access permit and the temporary additional point of delivery at MP 17.28 on the Madera Canal for delivery of up to 200 AF of substitute water supply for the purposes of livestock irrigation on lands located west of the Adobe Ranch pasturelands that receive water at Dike 3 (Figure 2). No groundwater pumping would occur.

The Proposed Action would involve placing an eight-foot long by ten-foot wide mobile self-contained trailer-mounted 80 horsepower (HP) Tier II diesel pump with flow meter at MP 17.28. The placement of the trailer would be within a wide section adjacent to the existing dirt road approximately 50-100 feet east of MP 17.28 (Photograph 1, Appendix A). The trailer would be placed over an eight-foot wide by ten-foot long metal spill containment pan to prevent fuel and oil leakage into the soil. Vegetation would be cut down for fire suppression and removed from site. No ground disturbance would occur.

A 20-30 foot long, eight-inch diameter, polyvinyl chloride (PVC) or rubber pipe would be placed within the Madera Canal. Weight of the pipe and water within the canal would hold it in place. The pipe would run up the surface of the north side of the canal until it reaches the existing dirt operation and maintenance road (O&M). At the road, the pipe would be placed in a hand dug eight-inch wide by eight-inch deep trench covered by a metal trench plate (Photograph 2, Appendix A). The pipe would continue to run along the surface to the trailer-mounted pump once it reaches the north side of the road. A second 50-100 foot long Certa-Lok Yelomine PVC pipe would extend west from the pump to a concrete inlet siphon at the north side of MP 17.28 (Photographs 3 and 4, Appendix A). An inlet drain that runs underneath the Madera Canal would deliver water

to the south side of the canal (Photograph 5, Appendix A). From the drain, water would flow into an existing natural channel to be delivered to two ponds [Pond 1 – 0.5 miles south; and Pond 2 – two miles south of the inlet drain] (see Figure 1). Both ponds are connected to the existing channel and are used for watering livestock (Photograph 6, Appendix A).

Pumping would be done at a constant 24 hour rate of three cubic feet per second (cfs) between September 1, 2009 through October 31, 2009 for delivery of up to 200 AF of water dependent on water availability in the Madera Canal.

Figure 2. Proposed Action Activities at MP 17.28

Thursday, August 13, 2009
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Section 3 Affected Environment & Environmental Consequences

3.1 Water Resources

3.1.1 Affected Environment

Madera Canal

The 35.9-mile-long Madera Canal extends north from Friant Dam to Ash Slough on the Chowchilla River in Madera County and carries water northerly from Millerton Lake to furnish lands in Madera County with a supplemental and a new irrigation supply. The canal, completed in 1945, has an initial capacity of 1,000 cfs, decreasing to a capacity of 625 cfs at the Chowchilla River. In 1965, the canal lining from the headworks to MP 2.09 was raised so that 1,250 cfs could be delivered.

The outlet works features two 91-inch-diameter steel pipes controlling releases through two 86-inch-diameter interior differential needle valves at the outlet ends. The needle valves discharge into a stilling basin that is the starting point of the Madera Canal. The canal bottom width varies from 8 to 10 feet in the concrete-lined sections and from 20 to 24 feet in the earth-lined sections. The water depth varies from 7 to 9 feet in all sections. Approximately 79 percent of the canal is earth-lined. Water ran for the first time through the entire length of Madera Canal on June 10, 1945, and deliveries were made a month later.

The Madera Diversion Dam (renamed the John A. Franchi Diversion Dam), on the Fresno River, is operated by the Madera Irrigation District. Built by Reclamation and completed in 1964, the earth and sheet steel piling dam supports the Madera Canal. Franchi stands 15-feet-high and spans 263 feet across the Fresno River (Reclamation 2009).

Smith Adobe Ranch Family Limited Partnership

Water that was originally delivered to Adobe Ranch lands was disrupted due to the construction of the Madera Canal in 1945. In order to receive a substitute water supply, Adobe Ranch entered into a contract (contract number 14-06-200-6523) with Reclamation on July 8, 1957 for up to 300 AFY of water to be delivered at MP 20.57 on the Madera Canal for irrigation purposes and livestock watering.

3.1.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, Reclamation would not approve the temporary addition or ROW access for delivery of up to 200 AF of Adobe Ranch's substitute water supply at

MP 17.28. The substitute water supply would continue to be delivered to their existing point of deliver at Dike number 3 and Adobe Ranch would have less cattle.

Proposed Action

Under the Proposed Action, up to 200 AF of water would be pumped from the Madera Canal to be delivered to the concrete inlet siphon on the north side of the dirt O&M road. Water would flow under the Madera Canal to be released at the outlet siphon on the south side of the canal into a natural watercourse to be delivered to two ponds south of the canal on Adobe Ranch lands to be used for livestock watering. This water is part of Adobe Ranch's 300 AF contract allocation and would not affect Reclamation's ability to deliver water to other customers. Groundwater would not be pumped as a result of the Proposed Action. Water delivered for livestock watering may also contribute a small amount to groundwater recharge as there is always some seepage into the ground from natural courses. There would be slight beneficial impacts to water resources as a result of the Proposed Action.

Cumulative Impacts

As the Proposed Action has no effect on water resources, there would be no cumulative effects.

3.2 Biological Resources

3.2.1 Affected Environment

A species list for the affected area (Daulton quad) was obtained from http://www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm on August 17, 2009 (document number 090817121705). Please see Table 1 for the species list, and a summary of occurrence information. A survey of the area was performed by Halstead & Associates on January 19, 2009. The area is mostly disturbed, consisting of a road, and non-native plants such as red-stem fillaree (*Erodium cicutarium*) and yellow starthistle (*Centaurea solstitialis*). The adjacent lands include annual grasslands, an intermittent drainage, and wetland habitat along the drainage and the downstream cattle ponds. Rushes (*Juncus* spp.), bulrushes (*Scirpus* spp.), and Gooding's black willow (*Salix gooddingii*) are found in patches. No sensitive species were found in the affected area, but a nest, believed to be that of a Red-tailed Hawk, was seen about 150 feet from the work area.

The primary constituent elements of critical habitat for vernal pool plants are the habitat components that provide: (i) Topographic features characterized by isolated mound and intermound complex within a matrix of surrounding uplands that result in continuously, or intermittently, flowing surface water in the depressional features including swales

connecting the pools described in Primary Constituent Element (ii), providing for dispersal and promoting hydroperiods of adequate length in the pools. (ii) Depressional features including isolated vernal pools with underlying restrictive soil layers that become inundated during winter rains and that continuously hold water or whose soils are saturated for a period long enough to promote germination, flowering, and seed production of predominantly annual native wetland species and typically exclude both native and nonnative upland plant species in all but the driest years. As these features are inundated on a seasonal basis, they do not promote the development of obligate wetland vegetation habitats typical of permanently flooded emergent wetlands (USFWS 2005).

Table 1. Species list for the Daulton Quad and Effects Summary.

Common Name	**Scientific Name**	**Listing Status under Endangered Species Act**	**Critical Habitat Status**	**Occurrence in Area of Effect**	**Effects Summary—Proposed Action**
Conservancy fairy shrimp	*Branchinecta conservatio*	endangered	designated	vernal pools absent; no critical habitat	no effect on species or critical habitat
vernal pool fairy shrimp	*Branchinecta lynchi*	threatened	designated	vernal pools absent; critical habitat present	no effect on species or critical habitat
valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	threatened	designated	elderberry shrubs absent; critical habitat only occurs in Sacramento County	no effect on species or critical habitat
delta smelt	*Hypomesus transpacificus*	threatened	designated	species' distribution and critical habitat outside affected area	no effect on species or critical habitat
Central Valley steelhead	*Oncorhynchus mykiss*	threatened	designated	species' distribution and critical habitat outside affected area	no effect on species or critical habitat
California tiger salamander	*Ambystoma californiense*	threatened	designated	vernal pools and other seasonal wetlands absent; no critical habitat	no effect on species or critical habitat
California red-legged frog	*Rana aurora draytonii*	threatened	designated	species likely extirpated from valley floor; no critical habitat in Madera County	no effect on species or critical habitat
blunt-nosed leopard lizard	*Gambelia sila*	endangered	none	no valley grassland or alkali sink scrub habitat; no construction	no effect
giant garter snake	*Thamnophis gigas*	threatened	none	outside species' range	no effect

Common Name	Scientific Name	Listing Status under Endangered Species Act	Critical Habitat Status	Occurrence in Area of Effect	Effects Summary—Proposed Action
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	endangered	designated	saltbush scrub/alkali sink habitat absent; outside of species' range; critical habitat only at Alkali Sink Ecological Reserve and nearby lands	no effect on species or critical habitat
Greene's tucotoria	*Tuctoria greenei*	endangered	designated	vernal pools absent; critical habitat absent	no effect on species or critical habitat
hairy Orcutt grass	*Orcuttia pilosa*	endangered	designated	vernal pools absent; critical habitat present	no effect on species or critical habitat
San Joaquin Valley Orcutt grass	*Orcuttia inaequalis*	threatened	designated	vernal pools absent; critical habitat present	no effect on species or critical habitat
succulent owl's-clover	*Castilleja campestris* ssp. *succulenta*	threatened	designated	vernal pools absent; critical habitat present	no effect on species or critical habitat

3.2.2 Environmental Consequences

No Action Alternative

Under the No Action alternative, fewer head of cattle would be grazed on the annual grassland served by the cattle ponds. This would not be expected to affect any sensitive species.

Proposed Action

Under the Proposed Action, some minor disturbance would occur in a mostly disturbed area. The only species at issue would be the raptors utilizing the nearby nest that Halstead & Associates found (likely a pair of Red-tailed Hawks). To protect these hawks, the work would be done outside of the nesting season (the non-nesting period is September through February). A follow-up survey by a qualified biologist is planned, to ensure that no effects have occurred on any riparian or wetland habitat. Work would be confined to a flagged area, to protect adjacent wetlands. As long as the work is confined to the area necessary for the installation of the pipes and trailer-mounted pump, no such impacts would be expected.

Critical habitat for the vernal pool fairy shrimp, hairy Orcutt grass, San Joaquin Valley Orcutt grass, and succulent owl's-clover are all present. No critical habitat for the California tiger salamander occurs in the affected area. However, no vernal pools or the watersheds of vernal pools would actually be affected by the Proposed Action, because the work would be confined to a small, already-disturbed area, which itself does not

contain any vernal pools, nor is it near any. That is, no primary constituent elements occur in the affected area. Only perennial wetlands are nearby.

Cumulative Impacts

As the Proposed Action itself would have no impacts on special-status plant, fish or wildlife resources, it would not contribute to cumulative impacts on those resources.

3.3 Air Quality

3.3.1 Affected Environment

The Proposed Action lies within the San Joaquin Valley Air Basin (SJVAB), the second largest air basin in California. Air basins share a common "air shed," the boundaries of which are defined by surrounding topography. Although mixing between adjacent air basins inevitably occurs, air quality conditions are relatively uniform within a given air basin. The San Joaquin Valley experiences episodes of poor atmospheric mixing caused by inversion layers formed when temperature increases with elevation above ground, or when a mass of warm, dry air settles over a mass of cooler air near the ground.

Despite years of improvements, the SJVAB does not meet state and federal health-based air quality standards. To protect health, the San Joaquin Valley Air Pollution Control District (SJVAPCD) is required by federal law to adopt stringent control measures to reduce emissions.

Section 176 (C) of the Clean Air Act [CAA] (42 U.S.C. 7506 (C)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110 (a) of the Federal Clean Air Act (42 U.S.C. 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements will, in fact conform to the applicable SIP before the action is taken.

On November 30, 1993, the Environmental Protection Agency (EPA) promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct

and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by the Proposed Action equal or exceed certain de minimis amounts thus requiring the federal agency to make a determination of general conformity.

The following de minimis thresholds covering the Proposed Action are presented in Table 2.

Table 2. San Joaquin Valley General Conformity de minimis Thresholds

Pollutant	Federal Status	de minimis (Tons/year)	de minimis (Pounds/day)
VOC/ROG (as an ozone precursor)	Nonattainment serious 8-hour ozone	50	274
NO_x (as an ozone precursor)	Nonattainment serious 8-hour ozone	50	274
PM_{10}	Nonattainment moderate	100	548
CO	Attainment Maintenance	100	548

Sources SJVAPCD 2009a; 40 CFR 93.153

3.3.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, there would be no impacts to air quality as conditions would remain the same as existing conditions.

Proposed Action

Under the Proposed Action, up to 200 AF of water would be pumped from the Madera Canal via an 80 HP Teir II Diesel tractor-mounted pump to be delivered to the concrete inlet siphon on the north side of the dirt O&M road. Water would flow under the Madera Canal to be released at the outlet siphon on the south side of the canal into a natural watercourse to be delivered to two ponds south of the canal on Adobe Ranch lands to be used for livestock watering.

Water pump emissions were calculated using the SJVAPCD's online emission calculator (SJVAPCD 2009b). Proposed Action emissions can be found in Table 3 below.

Table 3. Adobe Ranch Calculated Project Emissions General Conformity de minimis Thresholds			
Pollutant	**Federal Status**	**de minimis (Tons/year)**	**Project emissions[1] (Tons/year)**
VOC/ROG (as an ozone precursor)	Nonattainment serious 8-hour ozone	50	0
NO_x (as an ozone precursor)	Nonattainment serious 8-hour standard	50	0.4
PM_{10}	Attainment	100	Not calculated[2]
CO	Attainment	100	Not calculated[2]

Sources SJVAPCD 2009a & 2009b; 40 CFR 93.153.

Air quality emissions for the Proposed Action would be well below the de minimus thresholds for the SJVAPCD (Table 2); therefore, there would be no air quality impacts associated with the Proposed Action.

Cumulative Impacts

As the Proposed Action would have no effect on air quality, there would be no cumulative effects.

3.4 Cultural Resources

3.4.1 Affected Environment

Cultural resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must

[1] Proposed Action emissions are based on one 80 horsepower pump working 24 hours per day, seven days a week, for 1.5 months.

[2] The SJVAPCD does not calculate particulate matter or carbon monoxide for determining the need of an air quality permit for use of water pumps.

first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

Although archaeological sites are known to exist in the area, the activity is primarily limited to the existing facilities of the Madera Canal. This resource is considered a component of the built environment. The Madera Canal is a contributing feature of the Central Valley Project (CVP) which has been determined eligible for inclusion in the National Register and is in the process of being listed to the National Register.

3.4.2 Environmental Consequences

No Action Alternative

Under the no action alternative, Reclamation would not permit the pumping of water from the Madera Canal to supplement existing stock ponds on private lands. There would be no change to the current delivery of water through the existing system. As a result, the no action alternative has no potential to affect historic properties pursuant to 36 CFR Part 800.3(a)(1). There would be no impacts to cultural resources as a result of implementing the no action alternative.

Proposed Action

Under the proposed action alternative, Reclamation would permit 200 AF of water to be pumped out of the Madera Canal utilizing a mobile pump located adjacent an existing maintenance road near the Madera Canal. The water would be pumped into an existing waterway which would provide water downstream to existing stock ponds. A small trench through an existing maintenance road would be excavated to install the PVC pipe and allow maintenance vehicles ability to pass over the pipe. All excavation will occur within disturbed contexts of the existing maintenance road. The proposed action has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). The proposed action will have no impact to cultural resources as a result.

Cumulative Impacts

As the Proposed Action has no effects to historic properties or other cultural resources, the Proposed Action would have no cumulative effects.

3.5 Land Use

3.5.1 Affected Environment

The current contract includes approximately 700 acres of non-irrigated pasture owned by the Adobe Ranch. The water from the Reservoir is released at Dike 3 into a natural channel and travels approximately 1.5 miles south to a diked pond. The water delivered to Adobe Ranch is currently used for stock watering.

Non-irrigated pasture borders the channel and adjacent lands. There are no irrigated crops on this property. The approximately 320 acres of land covered under the Proposed Action would consist of natural channel, ponds, and non-irrigated pasture.

3.5.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, Reclamation would not approve the temporary additional point of delivery or the ROW access and water would not be delivered at MP 17.28 for livestock watering. Adobe Ranch would not be able to increase their herd of cattle from 250 head to 1000 head and would lose the revenue associated with the increase in livestock. Cattle already present would continue to be watered from seepage from the Madera Canal.

Proposed Action

The proposed temporary additional point of delivery would deliver water to two ponds: one located approximately 0.5 mile south and the second approximately 2 miles south of MP 17.28 at the Madera Canal. Both ponds are on the same channel and provide water for livestock. The Proposed Action would include the delivery of CVP water at a temporary additional point of delivery for livestock watering. The Proposed Action area is already used for livestock watering and would not include changes in land use; therefore there are no impacts to land used associated with the Proposed Action.

Cumulative Impacts

As the Proposed Action has no effect on land use or land use trends, the Proposed Action would have no cumulative effects on land.

3.6 Socioeconomic Resources

3.6.1 Affected Environment

Madera County has lower population densities, income levels, median age, and education levels than the California average. The county also has higher poverty levels than the state average (see Table 4).

Table 4. County Level Socioeconomic Data

County	2008 Population (estimate)	2000 Civilian Labor Force	2000 Employment (most recent available)	2000 Per Capita Income (most recent available)	2000 Unemployment Rate (%) (most recent available)
Madera	148,333	48,667	42,166	14,682	7.1
California	36,756,666	15,829,202	15,977,879	22,711	4.3

Source: U.S. Census Bureau 2009

3.6.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, Reclamation would not approve the temporary additional point of delivery or the ROW access and water would not be delivered at MP 17.28 for livestock watering. There would be no increase in revenue due to the increase in head of cattle that would have occurred due to the Proposed Action.

Proposed Action

Under the Proposed Action, water would be delivered at MP 17.28 for watering additional head of cattle. There would be a beneficial impact to Adobe Ranch's socioeconomic resources, but no overall impact to socioeconomic resources within the county.

Cumulative Impacts

As the Proposed Action would have no adverse effect on socioeconomic resources, the Proposed Action would not contribute to cumulative impacts to socioeconomic resources.

3.7 Environmental justice

3.7.1 Affected Environment

Environmental justice refers to the fair treatment of peoples of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no person or group of people should shoulder a disproportionate share of negative impacts resulting from the execution of federal programs.

Executive Order 12898, dated February 11, 1994, establishes the achievement of environmental justice as a federal agency priority. The memorandum accompanying the order directs heads of departments and agencies to analyze the environmental effects of federal actions, including human health, economic, and social effects when required by National Environmental Policy Act (NEPA), and to address significant and adverse effects on minority and low-income communities.

3.7.2 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in harm to economically disadvantage or minority populations nor would it cause dislocation, changes in employment, or increase flood, drought, or disease.

Proposed Action

The Proposed Action, like the No Action Alternative, would not cause dislocation, changes in employment, or increase flood, drought, or disease. The Proposed Action would not disproportionately impact economically disadvantaged or minority populations.

Cumulative Impacts

As the Proposed Action would not disproportionately impact economically disadvantaged or minority populations, the Proposed Action would not contribute to cumulative impacts to environmental justice.

3.8 Global Climate Change

3.8.1 Affected Environment

Climate change refers to significant change in measures of climate (e.g., temperature, precipitation, or wind) lasting for decades or longer. Many environmental changes can contribute to climate change such as changes in sun's intensity, changes in ocean circulation, deforestation, urbanization, burning fossil fuels, etc. (EPA 2009a).

Gases that trap heat in the atmosphere are often called greenhouse gases (GHG). Some greenhouse gases such as carbon dioxide (CO_2) occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are: CO_2, methane (MH_3), nitrous oxide, and fluorinated gasses (EPA 2009a).

During the past century, humans have substantially added to the amount of GHGs in the atmosphere by burning fossil fuels such as coal, natural gas, oil, and gasoline to power our cars, factories, utilities and appliances. The added gases, primarily CO_2 and MH_3, are enhancing the natural greenhouse effect, and likely contributing to an increase in global average temperature and related climate changes. There are uncertainties associated with the science of climate change (EPA 2009b).

More than 20 million Californians rely on the State Water Project and CVP. Increases in air temperature may lead to changes in precipitation patterns, runoff timing and volume, sea level rise, and changes in the amount of irrigation water needed due to modified evapotranspiration rates. These changes may lead to impacts to California's water resources and project operations. While there is general consensus in their trend, the magnitudes and onset-timing of impacts are uncertain and are scenario-dependent (Anderson et al. 2008).

3.8.2 Environmental Consequences

No Action Alternative

Implementation of the No Action Alternative would have no change on the composition of the atmosphere and therefore would have no direct or indirect effects to climate change.

Proposed Action

While the California Global Warming Solutions Act of 2006 (AB 32) focuses on stationary sources of GHG emissions, the primary objective of AB 32 is to reduce California's contribution to global climate change by reducing California's total annual production of GHG emissions. The impact that GHG emissions have on global climate change is not dependent on whether they were generated by stationary, mobile, or area sources, or whether they were generated in one region or another. Thus, the net change in total GHG levels generated by a project or activity is the best metric for determining whether the Proposed Action would contribute to climate change. The impacts of the Proposed Action on global climate change are addressed in the cumulative effects section.

Cumulative Impacts

GHG emissions generated during construction of the Proposed Action would predominantly be in the form of CO_2. In comparison to criteria air pollutants, such as ozone and particulate matter up to 10 microns in diameter, CO_2 and other GHG emissions persist in the atmosphere for a much longer period of time. While any increase in GHG emissions would add to the global inventory of gases that would contribute to global climate change, the Proposed Action would result in only very slight increases in GHG emissions from temporary or existing sources. The Proposed Action's contribution to a net increase in GHG emissions would be less than considerable.

Section 4 Consultation and Coordination

Several federal laws, permits, licenses and policy requirements have directed, limited or guided the NEPA analysis and decision making process of this EA.

4.1 Fish and Wildlife Coordination Act (16 USC § 651 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The Proposed Action consists of approving a temporary additional point of delivery and ROW access for the placement of a mobile pump on the Madera Canal for delivery of up to 200 AF of CVP water at MP 17.20 on the Madera Canal. It is not a water development project; therefore, the FWCA does not apply.

4.2 Endangered Species Act (16 USC § 1531 et seq.)

Section 7 of the ESA requires Federal agencies, in consultation with the Secretary of the Interior/Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species. Reclamation has determined that no Federally listed or proposed species or critical habitat would be affected; therefore, no consultation is required.

4.3 National Historic Preservation Act (16 USC § 470 et seq.)

The NHPA of 1966, as amended (16 USC 470 et seq.), requires that federal agencies give the Advisory Council on Historic Preservation an opportunity to comment on the effects of an undertaking on historic properties, properties that are eligible for inclusion in the National Register. The 36 CFR Part 800 regulations implement Section 106 of the NHPA.

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of federal undertakings on historic properties, properties determined eligible for inclusion in the National Register. Compliance with Section 106 follows a series of steps that are designed to identify interested parties, determine the APE, conduct cultural resource inventories, determine if historic properties are present within the APE, and assess effects on any identified historic properties. The Proposed Action has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). The Proposed Action would have no impact to cultural resources as a result.

4.4 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for federally-recognized Indian tribes or individual Indians. An Indian trust has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITAs can include land, minerals, federally-reserved hunting and fishing rights, federally-reserved water rights, and instream flows associated with trust land. Beneficiaries of the Indian trust relationship are federally-recognized Indian tribes with trust land; the United States is the trustee. By definition, ITAs cannot be sold, leased, or otherwise encumbered without approval of the United States. The characterization and application of the United States trust relationship have been defined by case law that interprets Congressional acts, executive orders, and historic treaty provisions.

The Proposed Action would not affect ITAs. The nearest ITA is a Public Domain Allotment, which is approximately 13 miles northeast of the project location.

4.5 Migratory Bird Treaty Act (16 USC § 703 et seq.)

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the United States, Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill, possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the MBTA, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The Proposed Action consists of approving a temporary additional point of delivery and ROW access for the placement of a mobile pump on the Madera Canal for delivery of up to 200 AF of CVP water at MP 17.20 on the Madera Canal. CVP water would be delivered through existing facilities to an already existing wetlands area. The addition of water to this area already fed by seepage from the Madera Canal would have no adverse impacts to birds protected under the MBTA. The raptor nesting season would be avoided.

4.6 Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and similarly, Executive Order 11990 places similar requirements for actions in wetlands.

The Proposed Action is not within floodplains but does have an area of wetlands that CVP water from the Madera Canal would be delivered to; however, the wetlands area is already fed from seepage from the Madera Canal and was created due to this seepage; therefore, delivery of CVP water from the Madera Canal would not have an adverse impact on the wetlands present within the Proposed Action area.

4.7 Clean Water Act (16 USC § 703 et seq.)

Section 401

Section 401 of the Clean Water Act [CWA] (33 USC § 1311) prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under sections 402 and 404 of the CWA (33 USC § 1342 and 1344). If new structures (e.g., treatment plants) are proposed, that would discharge effluent into navigable waters, relevant permits under the CWA would be required for the project applicant(s). Section 401 requires any applicant for an individual United States Army Corps of Engineers dredge and fill discharge permit to first obtain certification from the state that the activity associated with dredging or filling will comply with applicable state effluent and water quality standards. This certification must be approved or waived prior to the issuance of a permit for dredging and filling.

No pollutants would be discharged into any navigable waters under the Proposed Action so no permits under Section 401 of the CWA are required.

Section 404

Section 404 of the CWA authorizes the United States Army Corps of Engineers to issue permits to regulate the discharge of "dredged or fill materials into waters of the United States" (33 USC § 1344). No activities such as dredging or filling of wetlands or surface waters would be required for implementation of the Proposed Action, therefore permits obtained in compliance with CWA section 404 are not required.

4.8 Clean Air Act (42 USC § 7506 (C))

Section 176 of the CAA requires that any entity of the Federal government that engages in, supports, or in any way provided financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable SIP required under Section 110 (a) of the CAA (42 U.S.C. 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with a SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements will, in fact conform to the applicable SIP before the action is taken.

The Proposed Action would not involve any construction or land disturbing activities that could lead to fugitive dust emissions. The operation of one 80 HP diesel pump for the duration of the Proposed Action falls well below the de minimis thresholds for the SJVAPCD; therefore, there are no air quality impacts associated with the Proposed Action and a conformity analysis is not required.

Section 5 List of Preparers and Reviewers

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Section 6 References

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APPENDIX A – Site Photographs

Photograph 1. Wide section adjacent to dirt O&M road to be used for placement of trailer-mounted pump. Facing east.

Photograph 2. Dirt O&M road on north side of Madera Canal that would be trenched. Facing east.

Photograph 3. North side of dirt O&M road where surface placement of PVC Certa-Lok pipe would occur. Facing west.

Photograph 4. Concrete Inlet siphon on north side of dirt O&M road at MP 17.28.

Photograph 5. Outlet siphon on south side of Madera Canal at MP 17.28.

Photograph 6. Pond 1 used for watering livestock south of Madera Canal.

APPENDIX B – Environmental Documents